

REMARKS

STATUS OF THE CLAIMS

Claims 36-56 are pending in the application. Claims 36-56 stand rejected. Claims 1-35 have been previously canceled without prejudice or disclaimer of the subject matter disclosed therein. By this Response, claims 36-56 have been re-presented in accordance with the Examiner's suggestion to correct a numbering error.

REJECTION UNDER 35 U.S.C. §112

Claims 36-56 stand rejected under 35 U.S.C. §112, first paragraph, for failing to comply with the written description requirement. Specifically, in the Office Action dated April 22, 2004 (the Office Action), it is alleged that the disclosure lacks support for the range of, "0.01 to 0.15 percent one or more other elements" in light of a recited, "others 0-0.15." In this regard, particular examples of, "others" are given as lead, alone or in combination with chromium.

With regard to the use of a range of values to fulfill the requirements under 35 U.S.C. §112, first paragraph, in *Union Oil Co. of California v. Atlantic Richfield Co.*, 208 F.3d 989 (Fed. Cir. 2000), the Federal Circuit reasoned that the invention in question had been adequately described in terms of ranges of elements and that the use of ranges to describe one's invention does not offend 35 U.S.C. §112, first paragraph. In point of fact, the Federal Circuit emphasized that the invention lent itself to description in terms of ranges and variances of those ranges. Similarly, the present invention lends itself to description in terms of ranges of elements and, as such, is adequately described with regard to 35 U.S.C. §112, first paragraph.

With regard to claiming a range of values that is narrower than that recited in the specification, the Examiner is kindly reminded that the Court of Customs and Patent Appeals (CCPA) found in the matter of *In re Wertheim*, 541 F.2d 257 (C.C.P.A. 1976) that a claimed range narrower than that disclosed was adequately supported in the application. As stated by the CCPA:

In the context of this invention, in light of the description of the invention as employing solids contents within the range of 25-60% along with specific embodiments of 36% and 50%, we are of the opinion that, as a factual matter, persons skilled in the art would consider processes employing a 35%-60% solids content range to be part of the appellants' invention

The CCPA re-affirmed this finding in the matter of *In re Blaser*, 556 F.2d 534 (C.C.P.A. 1977) where they held as follows:

Appellants rely on the rationale of *In re Wertheim*,...as "clearly applicable here." Appellants urge that if a disclosure of 25%-60% solids content taught those skilled in the art that 35%-60% was part of the invention in *Wertheim*, although the latter range was not expressly mentioned therein, then appellants' disclosure of 60BC to 200BC in SN 159,159 would likewise teach 80BC to 200BC as part of appellants' invention. We agree with appellants that *Wertheim* is controlling on this point.

Accordingly, the CCPA held that the earlier-filed application adequately described the claims in the later-filed application as required under 35 U.S.C. §112, first paragraph. In light of the foregoing, withdrawal of the rejection under 35 U.S.C. §112, first paragraph, is respectfully requested.

REJECTION UNDER 35 U.S.C. § 103 (U.S. Patent No. 5,879,478 to Willem Loue et al.)

Claims 36-52, 54, and 56 are rejected under 35 U.S.C. § 103(a) as being anticipated by U.S. Patent No. 5,879,478 to Willem Loue et al. (the Loue document). The Applicant respectfully traverses this finding for at least the following reasons.

In order to establish a *prima facie* case of obviousness, the Examiner is kindly reminded that each of three basic criteria must be met. First, the prior art references must teach or suggest

all of the elements of the claimed invention. MPEP § 2142; MPEP § 2143.03. Second, there must be a reasonable expectation of success suggested in the prior art. MPEP § 2142. Third, there must be some motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art at the time the invention was conceived, to modify and/or combine the reference teachings. *Id.*

Claims 37-52, 54, and 56 depend from independent claim 36. A *prima facie* case of obviousness has not been made in that the Loue document fails to teach or suggest the invention as recited in claim 36 of the present application. It is further submitted that a proper motivation is not provided in the Office Action to modify or the Loue document or combine the Loue document with another document to teach or suggest the invention as recited in claim 36 of the present application.

The invention as set forth in claim 36 recites *inter alia*, injecting the semi-solid metal into a die cavity, wherein the metal is an aluminum alloy includes: 6.5 to 8.5 percent silicon by weight; 0.6 to 1.0 percent iron by weight; 0.01 to 0.5 percent manganese by weight; 0.35 to 0.65 percent magnesium by weight; 0.01 to 1.0 percent zinc by weight; 0.01 to 0.2 percent titanium by weight; 2.0 to 2.5 percent copper by weight; 0.01 to 0.15 percent one or more other elements; and aluminum as the remainder. (emphasis added)

In contrast, the Loue document discloses an aluminum alloy with the composition (by weight): Si 5%-7.2%; Cu: 1%-5%; Mg<1%; Zn<3%; Fe<1.5%; other elements<1% each and<3% in total, with % Si<7.5-% Cu/3. (See Abstract.) Also disclosed in the Loue document is the inclusion of up to 0.2% titanium and/or up to 0.1% boron. (See Column 3 Ln 17-19) However, manganese, the abbreviation for which is Mn, is conspicuously absent from the Loue document. That is, the Loue document fails to teach or suggest all of the claimed elements. As

such, a *prima facie* case of obviousness has not been established in that the Loue document fails to teach or suggest the invention as recited in claim 36 of the present application.

Absent the disclosure or suggestion of all of the claimed elements, the Loue document fails to provide a reasonable expectation of success and further fails to provide some motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art at the time the invention was conceived, to modify and/or combine the reference teachings. Therefore, on all counts, the Office Action has failed to establish a *prima facie* case of obviousness. If an Examiner fails to establish a *prima facie* case, the rejection is improper and will be overturned. See *In re Rijckaert*, 9 F.3d 1531 (Fed. Cir. 1993). The Federal Circuit further held in the matter of *In re Oetiker*, 977 F.2d 1443, 1445-1446 (Fed. Cir. 1992):

If examination ... does not produce a *prima facie* case of unpatentability, then without more the applicant is entitled to the grant of the patent.

In view of the foregoing, withdrawal of the 35 U.S.C. § 103(a) rejection to claim 36 as being anticipated by the Loue document is respectfully requested at least because the Loue document fails to disclose, at least, “injecting the semi-solid metal into a die cavity, wherein the metal is an aluminum alloy includes: 0.01 to 0.5 percent manganese by weight” as recited, *inter alia*, in claim 36. Claims 37-52, 54, and 56 depend from independent claim 36 and are therefore believed to be patentable for at least the same reasons as stated herein with respect to claim 36. Thus, the Applicant respectfully requests the Examiner to reconsider and withdraw the rejections of claims 36-52, 54, and 56.

ALLOWABLE SUBJECT MATTER

The Examiner is kindly thanked for her indication that claims 53-55 are allowable over the prior art assuming the rejection under 35 U.S.C. §112, first paragraph, is resolved. As the Applicant believes this to be the case, allowance of the claims 53-55 is earnestly sought.

CONCLUSION

In view of the foregoing remarks, the Applicant submits that the application is now in condition for allowance. If the Examiner believes that the application is not in condition for allowance, the Applicant respectfully requests that the Examiner contact the undersigned by telephone if it is believed that such contact will expedite the prosecution of the application.

In the event this paper is not time filed, the Applicant petitions for an appropriate extension of time. Please charge any fee deficiencies or credit any overpayments to Deposit Account No. 50-2036.

Respectfully submitted,

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